The Corps shall:

1. Minimize incidental take from dredging by applying conditions to the proposed action that avoid or minimize adverse effects to water quality and benthic invertebrate organisms.

2. Ensure completion of a monitoring and reporting program to confirm this incidental take statement is meeting its objective of minimizing incidental take from the proposed action.

Terms and Conditions

The measures described below are non-discretionary, and must be undertaken by the Corps for the exemption in section 7(o)(2) to apply. The Corps has a continuing duty to regulate the activity covered by this incidental take statement. If the Corps (1) fails to assume and implement the terms and conditions or (2) fails to require the dredging contractor to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, the protective coverage of section 7(o)(2) may lapse. To monitor the impact of incidental take, the Corps must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement.

1. To implement reasonable and prudent measure #1, the Corps shall:

   a. Work Window. Limit dredging to the summer in-water work window (July 1 through October 31).
   b. Benthic Data Collection. Collect and analyze benthic samples from the sediment surface prior to dredging. The baseline benthic data will be used for comparison with benthic data collected after dredging to document re-establishment of the benthic community following dredging. Sampling will be conducted at 6-month intervals for up to 18 months after dredging. The Corps shall submit a detailed, statistically valid sampling and analysis plan for NMFS's review and approval prior to beginning benthic data collection.
   c. Notice to Contractors. Ensure that before beginning work, all contractors working on site will be provided with a complete list of Corps permit special conditions, reasonable and prudent measures, and terms and conditions intended to minimize the amount and extent of take.
   d. Minimize Impact Area and Duration. Confine dredging impacts to the minimum area and duration necessary to complete the project. If a floating crane is used, it shall not rest on or disturb bottom sediment (this does not apply to spuds that may be used to stabilize a barge). Dredging will occur in the areas with the highest concentrations of contamination first and then proceed to cleaner areas to prevent contamination of cleaner areas and to minimize downstream impact.
   e. No Fallback or Redistribution. Ensure that all digging passes of the bucket will be completed without any material intentionally being returned to the wetted area. Dumping of partial or full buckets of dredged material back into the project area is not allowed. Implement other bucket control techniques such as not overfilling the bucket, closing the bucket as slowly as possible on the bottom, pausing before

hoisting the bucket off of the bottom to allow any overage to settle near the bottom, hoisting the load very slowly, "slamming" open the bucket after material is dumped on a barge to dislodge any additional material that is potentially clinging to the bucket, and ensuring that all material has been dumped into the barge from the bucket before returning for another bite. Dredging of holes or sumps below the maximum depth, and redistribution of sediment by dredging, dragging or other means is not allowed.

f. Debris. Ensure that all large anthropogenic debris be removed from dredged sediments and transported to an appropriate disposal site.

g. Cycling Time. Ensure that clamshell cycling time will be slowed or volume reduced, as necessary, to reduce turbidity and reduce sediment drift to adjacent areas.

h. Monitoring-- Turbidity. Ensure that the size of the dredge prism be monitored (amount and areal extent). Quantitative turbidity monitoring shall be conducted and recorded as described below. Monitoring shall occur each day during daylight hours when in-water work is being conducted. A properly and regularly calibrated turbidimeter is required.

   i. Representative background point. A sample must be taken every 2 hours at a relatively undisturbed area approximately 600 feet up-current from the point of in-water disturbance to establish background turbidity levels for each monitoring cycle. Background turbidity, location, time, and tidal stage must be recorded prior to monitoring downcurrent.

   ii. Compliance point. Monitoring shall occur every 2 hours approximately 300 to 500 feet down-current from the point of disturbance and be compared against the background measurement. The turbidity, location, time, and tidal stage must be recorded for each sample. At a minimum, a discrete measurement must be taken within 2 feet of the river bottom, and at one other depth.

   iii. Compliance. Results from the compliance points should be compared to the background levels taken during that monitoring interval. Turbidity may not exceed an increase of **5 NTUs** above background during the summer in-water work window.

   iv. Exceedance. If an exceedance over the background level occurs, the applicant must modify the activity and continue to monitor every 2 hours. If an exceedance over the background level continues after the second monitoring interval, the activity must stop until the turbidity levels return to background. If the exceedances continue, then work must be stopped and NMFS notified so that revisions to the best management practices can be evaluated.

   v. Weather. If the weather conditions are unsuitable to monitor the dredging operations (heavy fog, ice/snow, excessive winds, rough water, etc.), then dredging operations must cease until conditions are suitable for monitoring.

   vi. Reporting. Copies of daily logs for turbidity monitoring shall be available to NMFS upon request.

i. Monitoring– Sediment Deposition. Monitor the depth of new sediment accumulation and new surface sediment quality with respect to chemicals of concern (total DDT, PCBs, cadmium, zinc) throughout the dredge prism after dredging. If a minimum of 2 inches of new sediment (with concentrations of chemicals of concern that do not exceed the concentrations in the surface sediment before dredging took place, hereafter "acceptable contaminant concentrations") does not accumulate over the dredged surface within 6 months of the completion of dredging, the Corps shall cap the dredged area with no less than 6 inches of clean sand. If capping was not required at 6 months, then if 6 inches of new sediment (with acceptable contaminant concentrations) does not accumulate over the dredged surface within 18 months of the completion of dredging, the Corps shall cap the dredged area with no less than 6 inches of clean sand.

j. Place dredged material onto a flat-decked barge with watertight sideboards or a bin-type barge. Decant water will not be discharged back into the Willamette River. The dredged material and water will be transported to the upland disposal site, where no water contacting the dredged material will be allowed to discharge to the Columbia River.

k. Pollution Control Plan. Implement a pollution control plan (PCP) to prevent pollution caused by dredging operations from entering the river. The PCP must have the following components:

   i. The name and address of the party responsible for accomplishment of the PCP.

   ii. Practices to prevent contaminant releases associated with equipment and material storage sites and fueling staging areas.

   iii. A description of any regulated or hazardous products or materials that will be used for the project, including procedures for inventory, storage, handling, and monitoring.

   iv. A spill containment and control plan with notifications procedures, specific cleanup and disposal instructions for different products, quick response containment and cleanup measures that will be available on the site, proposed methods for disposal of spilled materials, and employee training for spill containment.

   v. Practices to prevent debris from dropping into any stream or waterbody, and to remove any material that does drop with a minimum disturbance to the streambed and water quality.

   vi. During dredging, monitoring will be done as often as necessary to ensure the controls discussed above are working properly. If monitoring or inspection shows that the controls are ineffective, work crews will be mobilized immediately to make repairs, install replacements, or install additional controls as necessary.

l. Transport. Ensure that during transport on the barge, the sediments will be prevented from blowing back into the river. As stated above, no water shall be discharged from the barge.

m. Upland Disposal Site. Ensure that the upland disposal site is large enough to accommodate the quantity of material and water to be placed there to allow

adequate settling. No water shall be discharged from the temporary or permanent disposal site to waters with ESA-listed species.

n. Contaminant containment. Deploy an absorptive boom during dredging to capture contaminants that may be floating on the water surface as a consequence of dredging.

o. Maintenance Dredging. Ensure that in the future, if maintenance dredging takes place to maintain the depth of the channel at Post Office Bar, at least 1 foot of new sediment accumulated after this current dredging operation must be left in place so the dredged surface or sand cap is not re-exposed in the future.

2. To implement reasonable and prudent measure #2, the Corps shall:

a. Reporting. Report all monitoring items, including turbidity measurements, size of the dredged area (amount and aerial extent), dates of initiation and completion of work, measurements of new sediment accumulation depth and benthic data at 6 and 18 months after dredging, and sediment quality data on the new surface material with respect to chemicals of concern at 6 and 18 months, to NMFS within 60 days of the close of any work window that had dredging activity within it, and within 60 days of the completion of monitoring or data collection at 6 and 18 months after dredging. Any exceedance of take covered by this Opinion must be reported to NMFS immediately. The report will include a discussion of implementation of the terms and conditions in #1, above.

b. Submit monitoring reports to:

National Marine Fisheries Service
Oregon State Habitat Office
Attn: 2008/07033
1201 NE Lloyd Boulevard, Suite 1100
Portland, OR 97232-2778

c. Post the following notice prominently at the work site:

NOTICE: If a sick, injured or dead specimen of a threatened or endangered species is found in the project area, the finder must notify NMFS through the contact person identified in the transmittal letter for this Opinion, or through the NMFS Office of Law Enforcement at 1-800-853-1964, and follow any instructions. If the proposed action may worsen the fish's condition before NMFS can be contacted, the finder should attempt to move the fish to a suitable location near the capture site while keeping the fish in the water and reducing its stress as much as possible. Do not disturb the fish after it has been moved. If the fish is dead, or dies while being captured or moved, report the following information: (1) NMFS consultation number; (2) the date, time, and location of discovery; (3) a brief description of circumstances and any information that may show the cause of death; and (4) photographs of the fish and where it was found. The NMFS also suggests that the finder coordinate with local biologists to recover any tags or other relevant research information. If the specimen is not needed by local biologists for tag recovery or by NMFS for analysis, the specimen should be returned to the water in which it was found, or otherwise discarded.